

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Yoshitsugu Morita et al. Confirmation No.: 5680
Serial No.: 10/538,819
Filed: June 13, 2005
Group Art Unit: 1709
Examiner: Loewe, Robert S.
For: COMPOSITE CURED SILICONE POWDER, METHOD FOR
PRODUCTION THEREOF, AND AQUEOUS COMPOSITION

DECLARATION UNDER 37 CFR § 1.132

MAILSTOP: AMENDMENT

Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

Dear Sir:

I, Kazuo Kobayashi, hereby state that:

1. I am a citizen of Japan.
2. I have a bachelor degree from the Science University of Tokyo in Tokyo Japan.

I am currently employed in a senior development specialist role for Dow Corning Toray Co., Ltd. of Tokyo, Japan. I have worked in silicone field for 24 years and I have been employed by Dow Corning Toray Co., Ltd. for the past 24 years.

3. I am the second named inventor of the pending U.S. Patent Application, Serial

No. 10/538,819, and a person highly skilled in the art of silicones including silicone powders and methods for producing such silicones including, in particular, methods for producing composite cured silicone powders.

4. In the present application, the invention, a composite cured silicone powder, includes a cured silicone powder (A) that has an average particle size of 0.1 to 500 micrometers, an inorganic fine powder (B) coated on a surface of the cured silicone powder (A), and a surface-active agent (C) coated on a surface of the inorganic fine powder (B). The present application also includes a method for producing the composite cured silicone powder, which includes the step of mixing components (A), (B), and (C) under conditions of mechanical shearing.

5. I am aware of, have read, and understand the disclosure of U.S. Patent No. 5,945,471 to Morita et al. (the '471 patent), which is entitled "COMPOSITE CURED SILICONE POWDER AND METHOD FOR THE PREPARATION THEREOF", an equivalent of which is the disclosure of Japanese (JP) Patent No. 09208709A2 to Morita et al., and U.S. Patent No. 5,387,624 to Morita et al. (the '624 patent), which is entitled "METHOD FOR THE PREPARATION OF A POWDER MIXTURE COMPOSED OF CURED SILICONE MICROPARTICLES AND INORGANIC MICROPARTICLES", an equivalent of which is the disclosure of JP Patent No. 05179144A2 to Morita et al.

6. For the reasons described in paragraphs 7 and 8 immediately below, the invention in the present application is unique and distinguishable from the '471 and '624 patents. Specifically, if the teachings of the '471 and '624 patents were to be combined and

followed, the composite cured silicone powders of the present invention would not be made.

7. After closely analyzing the '471 patent, I can find nothing in the '471 patent that teaches coating a surface-active agent on a surface of an inorganic powder. I recognize that the '471 patent describes various methods of making a cured silicone powder, including a method using surface active agents in aqueous solutions that are now well known to those skilled in the silicone art, such as myself. *However*, the surface active agents of the '417 patent are only used during preparation of the aqueous solutions of curable silicone compositions. In other words, there is no teaching in the '471 patent of using a surface active agent to coat the inorganic powder, or any suggestion of any need to do so. Instead, the overall goals of the '471 patent, for the most part, are to prepare a composite powder composition with excellent flowability and water repellency, which are obtained by use of a non-crosslinking oil during preparation of the cured silicone powder, i.e., the cured silicone powders of the '471 patent contain non-crosslinking oil to achieve the goals of the '471 patent. Any benefit of using the surface active agent in the '471 patent only relates to benefiting formation of the cured silicone powder, such as by controlling size and shape of the cured silicone powder.

8. After closely analyzing the '624 patent, I can find nothing in the '624 patent that teaches coating a surface-active agent on a surface of an inorganic powder. I recognize that the '624 patent describes various methods of making a cured silicone powder, including a method using surface active agents in aqueous solutions that are now well known to those skilled in the silicone art, such as myself. *However*, as like the '471 patent, the surface active

agents of the '624 patent are only used during preparation of the aqueous solutions of curable silicone compositions. In other words, there is no teaching in the '624 patent of using a surface active agent to coat the inorganic powder, or any suggestion of any need to do so. I also recognize that the '624 patent teaches a method of making a water-based suspension of A) cured silicone microparticles, B) inorganic particles, and C) a surfactant. However, as described above, the surfactant C) is used during preparation of the cured silicone microparticles A), and is not coated on inorganic particles B) when in powder form, i.e., after formation of the water-based suspension. In other words, there is no teaching in the '624 patent of using a surface active agent to coat the inorganic particles B). Instead, the overall goals of the '624 patent, for the most part, are to prepare powder mixtures relatively free from agglomeration that may be easily dispersed in organic resins, the powder mixtures being obtained by the water-based suspension method already described. Any benefit of using the surface active agent in the '624 patent only relates to benefiting formation of the cured silicone powder, such as by controlling size and shape of the cured silicone microparticles A).

9. **Conclusion**

As a result of my review of the '471 and '624 patents and also as a result of my understanding from a perspective of one skilled in the silicone art, the invention as claimed at the time of filing the patent application presented, and still presents, differences from the '471 and '624 patent both on an individual basis and even when combined. Specifically, even when combined, the '471 and '624 patents do not teach coating a surface active agent on an inorganic powder, as in the present invention. In addition, the '471 and '624 patents

only teach benefits of using surface active agents for formation of cured silicone powders for controlling size and shape of the cured silicone powder during formation. One skilled in the art, at the time of filing the present application, would not have linked this benefit to use with an inorganic powder, since the inorganic powder is not formed during the methods taught by the '471 and '624 patents or during the method of the present invention. In other words, particle size and shape of the inorganic powder is already set prior to making the cured silicone powders.

10. I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information are believed to be true, and further that these statements were made with the knowledge that willful and false statements and the like are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or patent issued thereon.

Respectfully submitted,

10th Oct. 2007

Dated

Kazuo Kobayashi

Kazuo Kobayashi